

Remarks/Arguments

The specification has been amended on page 6, lines 22 and 24 to correct the serial number of the referred to application. The Examiner is thanked for bringing this typographical error to Applicants' attention.

Claims 1-21 remain present in the case. Claims 1, 11 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by Villeneuve et al. (U.S. Patent No. 6,130,969), Claims 2-10 and 12-17 are indicated as containing allowable subject matter, and Claims 19-21 are believed to be allowed. In particular, with respect to Claims 19-21, it is noted that the Office Action Summary sheet indicates that these claims are subject to a Restriction Requirement. On pages 3 and 4 of the Office Action, however, it is indicated that Claims 19-21 are allowed. Inasmuch as the Office Action contains no discussion of a Restriction Requirement nor a requirement for election, Applicants assume that Claims 19-21 have been allowed.

By the present Amendment, Claims 3 and 13 have been rewritten as independent claims. These claims, together with Claims 2, 4, 7-10 and 14 dependent thereon, should, accordingly, now be allowed. In addition, Claim 2 has been amended to depend from Claim 3, and Claims 1, 5, 7, 11 and 15 have been amended to more clearly distinguish the claims over the cited art or to maintain proper dependency. Claims 1-21 are believed to patentably distinguish over the cited art and to be allowable in their present form, and reconsideration of the rejection is respectfully requested in view of the above amendments and the following comments.

Claim 1 is directed to a photonic crystal drop filter apparatus that includes first and second waveguides and a resonant cavity connecting the first and second waveguides for extracting at least one wavelength of light transmitted in the first

waveguide and redirecting the extracted light to the second waveguide. In addition, Claim 1 recites “a tuning member for controlling the at least one wavelength of the light extracted from said first waveguide”.

In rejecting Claims 1, 11 and 18, the Examiner refers to col. 7, line 55 to col.8, line 1 of Villeneuve as disclosing that the channel drop filters disclosed therein may be configured to be tunable. Villeneuve, however, discloses that tunability can be achieved by using non-linear materials such that the “dielectric constants of the resonator-system or of its surroundings can then be configured using electronic, piezo-electric, thermal, or electromagnetic mechanisms such as, but not limited, the electro-optic effect, the charge- carrier effect, and the photoionization of DX centers, allowing the CDF to be tuned”.

In Villeneuve, tunability is achieved by configuring the dielectric constants of the resonator system or its surroundings. The reference does not disclose providing a tuning member for controlling at least one wavelength of light extracted from a first waveguide as recited in Claim 1.

In order to further clarify differences between Villeneuve and the apparatus of Claim 1, Claim 1 has been amended to include subject matter previously recited in allowable Claim 5 that “the at least one wavelength of the light extracted from said first waveguide is a function of a position of said tuning member relative to said resonant cavity” (emphasis added). Villeneuve does not disclose a tuning member in which the wavelength of extracted light is a function of the position of the tuning member relative to a resonant cavity.

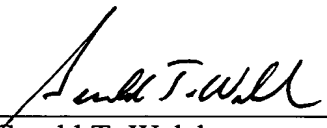
Claim 1, as amended herein, is, accordingly, not anticipated by Villeneuve, and should be allowable in its present form.

Independent Claim 11 has been amended in a manner similar to Claim 1 and should also be allowable in its present form. Claim 18 depends from Claim 11 and should also be allowable, at least by virtue of its dependency.

For all the above reasons, Claims 1-21 are believed to be allowable in their present form and this application is believed to be in condition for allowance. It is, accordingly, respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

Respectfully submitted,

Carol J. Wilson et al.

By: 
Gerald T. Welch
Attorney/Agent for Applicants
Reg. No. 30,332
(214) 758-6610